

535, 29

Doc'd PCT

17 MAY 2005

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
10 June 2004 (10.06.2004)

PCT

(10) International Publication Number  
**WO 2004/049308 A1**

(51) International Patent Classification<sup>7</sup>: **G10L 15/26**

(21) International Application Number:

PCT/IB2003/004920

(22) International Filing Date: 31 October 2003 (31.10.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

02102626.5 22 November 2002 (22.11.2002) EP

(71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL];  
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **SAFFER, Zsolt**  
[AT/AT]; Triester Strasse 64, A-1101 Vienna (AT).

(74) Agent: **RÖGGLA, Harald**; Philips Intellectual Property  
& Standards, Triester Strasse 64, A-1101 Vienna (AT).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **SPEECH RECOGNITION DEVICE AND METHOD**

(57) Abstract: In a speech recognition device (1) for recognizing text information (TI) corresponding to speech information (SI), wherein speech information (SI) can be characterized in respect of language properties, there are firstly provided at least two language-property recognition means (20, 21, 22, 23), each of the language-property recognition means (20, 21, 22, 23) being arranged, by using the speech information (SI), to recognize a language property assigned to said means and to generate property information (ASI, LI, SGI, CI) representing the language property that is recognized, and secondly there are provided speech recognition means (24) that, while continuously taking into account the at least two items of property information (ASI, LI, SGI, CI), are arranged to recognize the text information (TI) corresponding to the speech information (SI).

WO 2004/049308 A1

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/18 03/04920

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 G10L15/26

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G10L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/087306 A1 (BASIR OTMAN A ET AL) 4 July 2002 (2002-07-04)	1,3-6, 8-13
Y	abstract; figure 1	2,7
Y	US 2002/138272 A1 (ANDERSON ANDREW V ET AL) 26 September 2002 (2002-09-26) abstract; figures 1-3	2,7
X	US 2002/087311 A1 (BASIR OTMAN A ET AL) 4 July 2002 (2002-07-04)	1,3-6, 8-13
A	abstract; figure 1	
A	EP 1 160 768 A (CANON KK) 5 December 2001 (2001-12-05)	2,7
	abstract; figures 2,3,8,13	
A	EP 1 063 635 A (INTERNAT BUSINESS MACHINES) 27 December 2000 (2000-12-27) abstract; figure 3	1-13

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

**\* Special categories of cited documents :**

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the International filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*G\* document member of the same patent family

Date of the actual completion of the international search

13 February 2004

Date of mailing of the international search report

26/02/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Quélavoine, R

## INTERNATIONAL SEARCH REPORT

Patent Application No

PCT/IB 03/04920

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2002087306	A1	04-07-2002	WO 02054384 A1 11-07-2002
			WO 02054385 A1 11-07-2002
			WO 02054033 A2 11-07-2002
			US 2002087320 A1 04-07-2002
			US 2002087325 A1 04-07-2002
			US 2002087315 A1 04-07-2002
			US 2002087326 A1 04-07-2002
			US 2002087310 A1 04-07-2002
			US 2002087327 A1 04-07-2002
			US 2002087311 A1 04-07-2002
			US 2002087316 A1 04-07-2002
			US 2002087313 A1 04-07-2002
			US 2002087312 A1 04-07-2002
			US 2002087307 A1 04-07-2002
			US 2002087317 A1 04-07-2002
			US 2002087309 A1 04-07-2002
US 2002138272	A1	26-09-2002	NONE
US 2002087311	A1	04-07-2002	WO 02054385 A1 11-07-2002
			WO 02054384 A1 11-07-2002
			WO 02054033 A2 11-07-2002
			US 2002087320 A1 04-07-2002
			US 2002087325 A1 04-07-2002
			US 2002087315 A1 04-07-2002
			US 2002087326 A1 04-07-2002
			US 2002087310 A1 04-07-2002
			US 2002087327 A1 04-07-2002
			US 2002087316 A1 04-07-2002
			US 2002087313 A1 04-07-2002
			US 2002087312 A1 04-07-2002
			US 2002087306 A1 04-07-2002
			US 2002087307 A1 04-07-2002
			US 2002087317 A1 04-07-2002
			US 2002087309 A1 04-07-2002
EP 1160768	A	05-12-2001	EP 1160768 A2 05-12-2001
			JP 2002140087 A 17-05-2002
			US 2002059065 A1 16-05-2002
			GB 2367466 A 03-04-2002
			GB 2367990 A 17-04-2002
			GB 2367729 A 10-04-2002
			US 2002026253 A1 28-02-2002
			US 2002038211 A1 28-03-2002
			US 2002026309 A1 28-02-2002
EP 1063635	A	27-12-2000	US 6345254 B1 05-02-2002
			CA 2303718 A1 29-11-2000
			EP 1063635 A2 27-12-2000